

## SEVERE LOCAL STORMS, JANUARY, 1930

The table herewith contains such data as have been received concerning severe local storms that occurred during the month. A more complete statement will appear in the Annual Report of the Chief of Bureau

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Texas (north-central).....	7-9					Rain, sleet, and snow.	Overhead wires damaged, traffic delayed, numerous accidents; livestock suffered from severe cold; barley and wheat killed.	Official, U. S. Weather Bureau.
Illinois (southern half), Indiana, and northern Ohio.	8-9					Severe sleet	Power, telephone, and telegraph lines damaged; travel difficult and dangerous; fruit trees broken.	Do.
Cairo, Ill.	13	11:48 p. m.	100			Thundersquall	Garage and 2 small houses demolished	Do.
Austin, Tex., and vicinity	19-21					Ice	Travel difficult; temporary suspension of bus traffic.	Do.
Dallas, Tex., and vicinity	21					do	Considerable loss of property	Do.
Port Arthur, Tex. (off coast).	28-29	Night		14		Severe squall	Tug sank; entire crew lost	Do.

## RIVERS AND FLOODS

By R. E. SPENCER

In a discussion received too late for inclusion in the December REVIEW, the losses resulting from the moderate Wabash system flood of that month are reported as follows:

Tangible property.....	\$700
Crops, prospective and matured.....	67,000
Suspension of business.....	8,950

76,650

Property saved through Weather Bureau flood warnings. 37,500

In January the only floods of consequence were those in the Wabash-White system of Indiana, and the St. Francis River of Arkansas.

Weather conditions immediately preceding the Wabash-White flood were particularly favorable to its inception. During late December, snow had accumulated in depths ranging from 3 to 6 inches over the White Basin to as much as 18 inches in parts of the upper Wabash Valley. Run-off from this snow cover, already in evidence in the rising streams at the close of December, was considerably increased by the high temperatures of January 1 and 2, and greatly augmented by moderate to heavy but rather irregularly distributed rains on the latter date. The result was that flood stages were reached at all stations on the Wabash proper during the first six days of January. The period from the 2d to the 6th was largely without rainfall, and at stations as far down as Covington, Ind., the river fell somewhat; but beginning with the 6th-7th and continuing (with a 24-hour intermission on the 10th) until the 14th, moderate to heavy rains were again general. In the first four days of this period the rainfall averaged about 2.60 inches over the upper half of the Wabash Valley, and about 2.90 inches over the lower half, while the average over the entire White Basin was slightly in excess of 3.00 inches.

The resultant flood, already of serious character before the cessation of the rain, was substantially checked by the sharp temperature drop of the 15th; but destruction of a severe and extensive character had already occurred. Except at Vincennes on the Wabash, and at Decker on the White, where the stages exceeded by 1.2 feet and 0.2 foot, respectively, the previous high water records, the crests reached this month were lower by substantial amounts than those of the great flood of 1913; but ice gorges were frequent—the two most important of which formed at Mackey Ferry, south of New Harmony, and at Riverton, between Terre Haute and Vincennes; and levee breaks were numerous, and overflow very extensive. Specific details are not yet available of the damage done

to farms, highways, bridges, railroad property, etc.; a further discussion on this point will appear in the February REVIEW.

An important feature of the flood was the suffering caused by the pronounced cold which prevailed following the 14th. Refugees, caught in the upper stories of houses or driven from lowland farms and communities, remained isolated, inadequately sheltered, and without food or fuel, for comparatively long periods in which temperatures remained near zero, and during which rescue was rendered especially difficult by the freezing of the surrounding water.

Flood warnings, the issue of which was begun as early as December 26, and continued as necessary, were of a high order of accuracy even in spite of the difficulty imposed by levee breaks. No estimate of their monetary value has yet been made.

The moderate floods of the Lake Erie drainage and the interior rivers of Ohio were caused by the same general weather conditions as was that in the Wabash system. In the Maumee system losses, including that due to suspension of business, amounted to about \$35,000; and considerable inconvenience was caused—along the St. Marys, St. Joseph, and lower Auglaize Rivers—by the flooding of homes and business houses.

The floods in Ohio were not particularly important.

Along the Green River of Kentucky and the lower Ohio River the major damage was to matured crops; and a second important loss was that due to damage to farm fences—the recession of water from overflowed lands, occurring after widespread freezing, having left deposits of ice upon the fences heavy enough over many miles of extent to break them down. Losses along the Green amounted to about \$23,000, of which \$20,000 was in matured crops; and \$29,000 was reported saved through the Weather Bureau warnings. The total of losses on the lower Ohio was \$178,500, distributed as follows:

Tangible property (chiefly fences).....	\$36,600
Matured crops.....	124,800
Livestock and other movable property.....	900
Suspension of business.....	16,200
Savings effected by Weather Bureau flood warnings.....	63,000

In the St. Francis River Basin, the flooding, which resulted from heavy rainfall in the upper St. Francis and Little River Basins on January 2 and from the 7th to the 14th, was most extensive in Clay, Green, Craighead, and Mississippi Counties of Arkansas. Levee breaks occurred in these counties as follows:

One in the St. Francis River Levee, Arkansas side, near Nimmons, Ark., January 18, width 150 feet; 3 in the St. Francis River Levee, Arkansas side, north of Bertig, Ark., January 15, width 100 feet; 1 in the St. Francis River Levee, Arkansas side, north of Bertig, Ark., January 17, width 150 feet; 1 in Big Lake Levee, 10